

**Environmental Advisory Committee
on Arctic Marine Transportation:
Review of Activities, 1981 through 1985**

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MARINE TRANSPORTATION: REVIEW OF
ACTIVITIES, 1981 THROUGH 1985

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ABSTRACT

Nicholls, H.B.(Ed). Environmental Advisory Committee on Arctic Marine Transportation: Review of activities, 1981 through 1985. Can. Tech. Rep. Fish. Aquat. Sci. No. 1486: V+37p.

This document reports on the activities of the Environmental Advisory Committee on Arctic Marine Transportation (EACAMT) from its founding in 1981 through 1985. The committee, which is made up of federal, territorial, industry, and Inuit members, provides advice to the Canadian Coast Guard pertaining to the environmental impacts of Arctic shipping. The document provides the background to the establishment of the committee, summarizes its terms of reference and objectives, outlines the activities of EACAMT during the five-year period, and gives the views of the various member-groups (e.g. Co-Chairmen, Coast Guard, Industry) on the effectiveness of the committee. Separate appendices list EACAMT membership, itemize the various meetings of the committee, and provide the complete terms-of- reference.

RESUME

Nicholls, H.B.(Ed). Environmental Advisory Committee on Arctic Marine Transportation: Review of activities, 1981 through 1985. Can. Tech. Rep. Fish. Aquat. Sci. No. 1486: V+37p.

Le présent document rend compte des activités du Comité consultatif environnemental sur le transport maritime en milieu arctique, de sa création, en 1981, jusqu'à 1985. Le comité, composé de représentants du gouvernement fédéral, des territoires, de l'industrie et de la collectivité inuite conseille la Garde côtière canadienne en ce qui concerne les répercussions du transport maritime dans l'Arctique sur l'environnement. Le document présente l'historique du comité, un résumé de son mandat et de ses objectifs, les grandes lignes de ses activités durant la période susmentionnée et les opinions de ses différents membres (ex.: représentants de la Garde côtière et de l'industrie, co-présidents) sur son efficacité. On trouvera en annexe la liste des membres et des diverses réunions du comité, ainsi qu'un exposé complet de son mandat.

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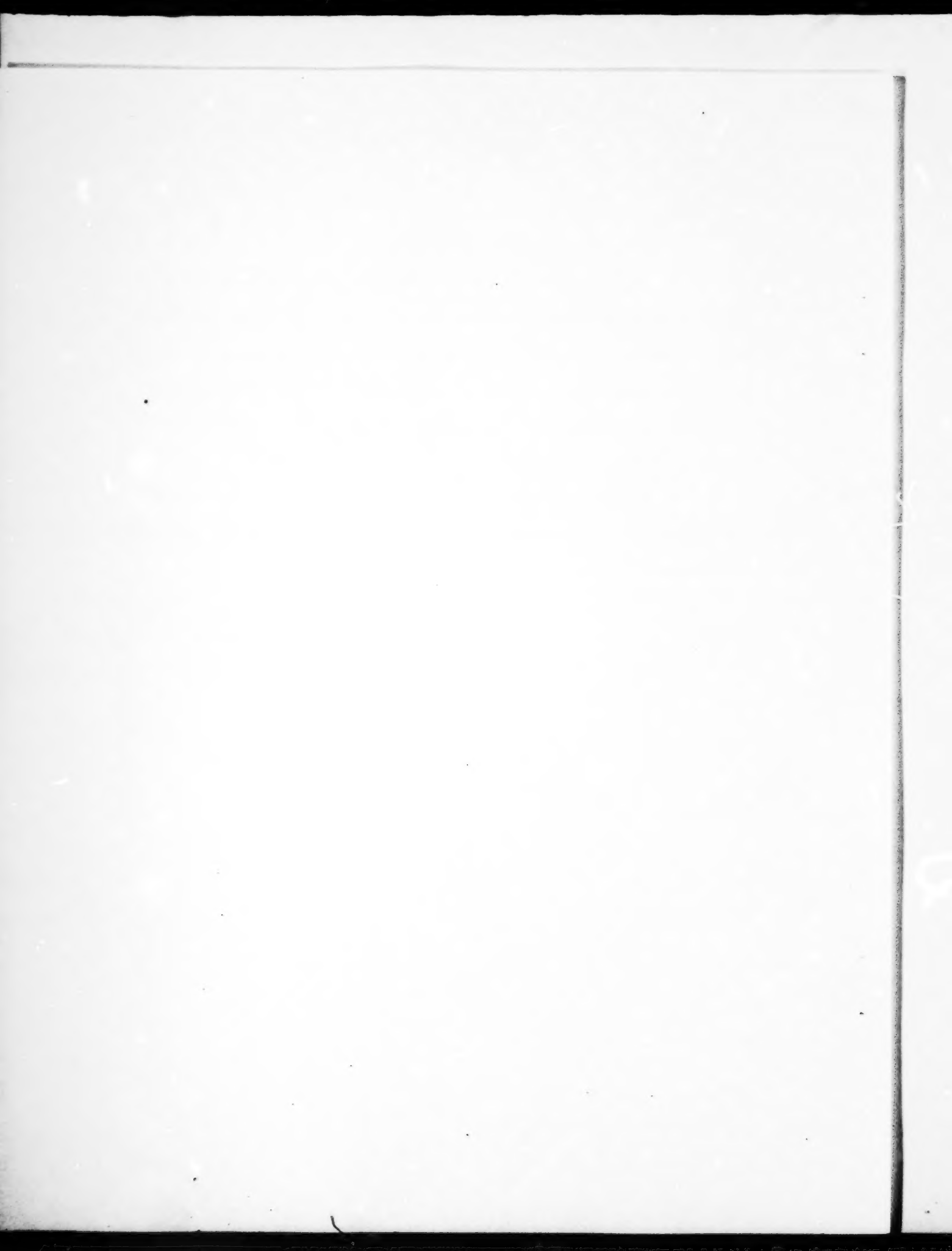
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PREFACE

This review results from a decision made during a discussion of the role and tasks of EACAMT at the 23 October 1984 meeting of the Committee (Meeting #84-3(8)). Minute #3.9 of that meeting states in part: "The suggestion that EACAMT publish an annual review was well received, and Brian Nicholls volunteered to do this". It was subsequently decided that the first review should cover the period from the founding of the Committee to the present, i.e. 1985.

I wish to acknowledge the assistance provided by Red Clarke, Department of Fisheries and Oceans and Bruce Switzer, Department of the Environment, in the preparation of this review.

H.B. Nicholls



1.0 INTRODUCTION

The Environmental Advisory Committee on Arctic Marine Transportation (EACAMT) is an advisory body concerned with the environmental (and associated socio-economic) aspects of shipping in the Canadian north. It advises the Canadian Coast Guard's Arctic Shipping Control Authority (ASCA), which is responsible for the region north of 60°N. All types of shipping are of concern, for example Arctic resupply, transportation of minerals and hydrocarbons from the Arctic to southern markets, and cruise ships. Activities other than shipping, for example drilling for hydrocarbons, are not covered. Membership of the committee comprises federal, territorial, industry and Inuit representatives, with the chairmanship being shared between two federal departments (Department of the Environment and Department of Fisheries and Oceans). The committee does not report to a specific agency or individual, nor does it have its own separate budget. This document presents a report of the activities of the Committee from its founding in 1981 through 1985.

2.0 ESTABLISHMENT OF EACAMT

EACAMT was established as a result of a recommendation by the Arctic Pilot Project (Northern Component) Environmental Assessment Panel in its final report¹:

"The Panel recommends, therefore, that the Minister of Transport establish a control authority to monitor, assist, and regulate ship movements in the Arctic, particularly the Northwest Passage, on behalf of the Government of Canada.....

To assist it further, the Departments of Environment and Fisheries and Oceans should establish an advisory committee which would recommend and approve studies necessary to allow biological information to be effectively integrated into the

¹ Federal Environmental Review Office, 1980 (October). Arctic Pilot Project (Northern Component) Report of the Environmental Assessment Panel, p. 75.

route selection process. Membership on this committee should include the proponent, Inuit, the territorial government and other federal departments.....

These recommendations are fundamental to the Panel's endorsement of the Arctic Pilot Project"

The first meeting of EACAMT was held on October 30, 1981. Present were representatives of six federal departments (Energy, Mines and Resources, Environment, Fisheries and Oceans, Indian Affairs and Northern Development, National Defence, and Transport); both Territories; and two oil companies [Dome and Petro Canada (Arctic Pilot Project)].

3.0 TERMS OF REFERENCE, OBJECTIVES, ETC.

3.1 Terms of Reference

At the first meeting of the Committee, a draft Memorandum of Understanding (MOU) between the Department of Transport and, jointly, the Department of the Environment and the Department of Fisheries and Oceans was provided to members². The document contained the following statement of purpose:

"The purpose of this Memorandum of Understanding is to formally recognize the commitment of the three parties to provision of a management system for arctic shipping routes and ship movements and the development and provision of environmental information and advice for incorporation into the management system. It defines the respective roles and responsibilities of the three parties and, further, serves to demonstrate implementation of the recommendations of the Environmental Assessment and Review Panel of the Arctic Pilot Project (Northern Component).

²Note that as of the date of this report, i.e. March 1986, this MOU had not been signed by the parties involved.

Included as annexes to this MOU were draft terms of reference for the Control Authority and the Environmental Advisory Committee on Arctic Marine Transportation. The Chairman noted at this first meeting that the draft terms of reference for EACAMT had been developed by DOT, DOE and DFO. He stated that the Committee was "quite free to propose its own terms of reference using the draft as a starting point". The role of the committee as outlined in the MOU and the Terms of Reference document was broader than that recommended by the Environmental Assessment Panel in its report in that it included socio-economic aspects and human activity, and defined the geographic region of concern of the Committee as Canadian Arctic waters generally rather than only those through which the Arctic Pilot Project planned to route its vessels. The Committee decided to opt for this broader mandate, and subsequently finalized its Terms of Reference, a copy of which is included as Appendix 'C' to this Review. Also included in Appendix 'C' is a copy of the Terms of Reference of the Control Authority.

3.2 Objectives

In June 1983 (at the 5th meeting of the Committee), EACAMT finalized a series of objectives based on its terms of reference. These objectives are:

- to assist the Control Authority by advising on route selection criteria and recommending routes or corridors with reference to environmental factors;
- to assist the Control Authority by reviewing and advising on routes proposed by proponents and operators;
- to recommend to the Control Authority environmental operating conditions and monitoring requirements along the routes selected;
- to identify to the Control Authority residual environmental concerns and issues related to the routes selected;
- to recommend to the Control authority requirements for research (to address and mitigate residual environmental concerns and issues) for funding and implementation by appropriate agencies; and

- to evaluate regularly the effectiveness of the advice provided and of the advisory process.

4.0 REVIEW OF EACAMT ACTIVITIES

4.1 Introduction

EACAMT has met on nine occasions during the period 1981 through 1985, two of which were joint meetings with the Control Authority. During this period it has discussed a wide variety of items and undertaken several specific tasks. Most prominent amongst the specific tasks were the review of the Arctic Pilot Project Integrated Route Analysis, the development of a proposal to identify significant environmental issues associated with shipping (vessel-environment interactions) in the eastern Arctic and associated monitoring and research requirements, and reviews of the shipping component of Panarctic's Bent Horn project. In addition, reviews were undertaken of some other shipping initiatives in the Arctic such as the voyages of the LADY FRANKLIN, LINDBLAD EXPLORER and POLAR STERN. EACAMT provided advice to the Canadian Coast Guard, based on its reviews, for the better protection of Canada's arctic marine environment.

In addition to its reviews, an important function of EACAMT is that it acts as a forum for exchanging information on Arctic shipping. In this regard the joint meetings with the Arctic Shipping Control Authority, the participation of the Canadian Coast Guard at EACAMT's meetings and on its working groups, and the circulation of relevant information are especially useful. This has enabled members and their organizations to keep abreast and obtain an overview of plans for shipping in Canada's Arctic.

A third facet of EACAMT's activities has been the planning of its own activities to ensure that the committee is in the best position possible to provide scientifically sound and meaningful advice to the Canadian Coast Guard on environmental matters. All the reviews and discussions of EACAMT have contributed to this process, but the review of the Arctic Pilot Project Integrated Route Analysis and the development of the proposal for a workshop

on vessel-environment interactions in the eastern Arctic were the most important components.

The following sections outline the most important tasks undertaken by EACAMT from 1981 to 1985.

4.2 Review/Advisory

(a) Arctic Pilot Project Integrated Route Analysis

The Arctic Pilot Project (APP) was a joint undertaking by Petro-Canada, Dome Petroleum, Melville Shipping and Nova to demonstrate the feasibility of delivering liquified natural gas by ice-breaking tankers from Bridport Inlet on southern Melville Island, through eastern Viscount Melville Sound, Barrow Strait, Lancaster Sound, Baffin Bay and Davis Strait to a southern terminus located in Nova Scotia, Quebec or Europe. The APP was referred to FEARO in November 1977. Public hearings on its northern component were conducted in 1980, and the Environmental Assessment Panel's report, which led to the establishment of EACAMT, was released in October 1980. A TERMPOL Code Assessment was conducted in 1980 and 1981, and its reports were released in December 1981. The EARP and TERMPOL reports both recommended approval subject to certain terms and conditions. An amended application was submitted to DIAND, DOT and the National Energy Board (NEB) in October 1980. The NEB review began in February 1982, but the public hearings were adjourned in August 1982 until a definite proposal was made for gas export. In August 1984 the NEB dismissed the APP application because there was no definite proposal for gas export.

The APP was the focus for much of EACAMT's initial work. EACAMT established a working group to review the project's Integrated Route Analysis. This document utilized biological data, physical data and renewable resource use information in selecting a safe and environmentally preferred shipping corridor for APP ships. The working group met in February 1982 and agreed that DFO, DIAND and DOE would conduct detailed reviews of the

Integrated Route Analysis focussing on the accuracy, thoroughness and effectiveness of the information used by APP. The three departments also undertook reviews of APP's proposed environmental studies program for 1982. By November 1982 the working group had received the reviews of the Integrated Route Analysis from the three departments. EACAMT discussed the next steps at its November 1982 meeting and concluded that the subject was of such importance that the working group, with expanded membership, should meet to finalize the review of the Integrated Route Analysis, identify key areas within the shipping corridor where further studies may be required, and develop recommendations to the Control Authority regarding the provision of services and environmental guidelines applicable to shipping within the corridor.

In December 1982 the working group concluded that, with some noted changes and appropriate updating, the Integrated Route Analysis provided an acceptable and accurate description of environmental conditions for the area within and adjacent to the proposed APP shipping corridor. It also concluded that the proposed APP shipping corridor represented the preferred marine transportation corridor for the APP and existing traffic, and that environmental impacts within the corridor should be within acceptable limits. However, it stressed that corridor boundaries through Barrow Strait might require further delineation, and seasonal variation of corridor boundaries might be desirable, as more information becomes available. The working group's endorsement of the proposed APP shipping corridor was conditional on the following studies and activities being undertaken: continued investigation of the significance of underwater noise; development of a monitoring program; initiation of a program to obtain comprehensive meteorological data that would benefit shipping in Parry Channel; studies on the distribution and abundance of ringed seals in Barrow Strait; provision of ship transit information to hunters from Resolute Bay; studies on the distribution and circulation patterns of icebergs at the entrance to Lancaster Sound; and studies on ringed seal, bowhead and walrus distribution and movements in Baffin Bay and Davis Strait. The working group concluded that specific guidelines were not necessary for the APP and existing

traffic. However, a list of 23 potential topics for guidelines was generated that would require consideration when marine traffic increases in the Arctic.

At its June 1983 meeting, EACAMT accepted the working group's report and provided it to the Control Authority. There was general agreement that the corridor concept be implemented. In view of the implications of the corridor concept to existing shipping and to northerners it was agreed to consult with other shipping companies and native groups. A short description of the route selection process was prepared to aid consultations. These culminated at the January 1984 EACAMT meeting at which representatives of the shipping industry, the Inuit Circumpolar Conference and McGill University were present. The conclusion from the meeting was that EACAMT's working group should examine the applicability of the proposed corridor to existing shipping (see 4.2 Vessel-Environment Interactions).

With the dismissal of the APP application by the NEB in August 1984, EACAMT has had no further involvement with the APP.

(b) Bent Horn

Exploratory drilling for hydrocarbons in the High Arctic first began in 1962. Since then, most drilling activity has occurred in the Sverdrup Basin where 121 wells have been drilled. In 1984, the Geological Survey of Canada reported that seventeen discoveries or significant shows had been found in the Sverdrup Basin that indicated a reserve at a best current estimate of 76 million cubic metres of recoverable oil and 361 billion cubic metres of marketable natural gas.

In late 1983, Panarctic Oils Ltd. advised the Department of Indian Affairs and Northern Development (DIAND) that it wished to produce oil from the West Bent Horn A-02 well on Cameron Island, Northwest Territories with shipment, during the summer only, of small amounts of crude oil to eastern markets. This was discussed by the Senior Policy Committee on Northern Resource Development in early 1984. Panarctic filed a revised Development Plan application in June 1984. The Plan proposed that in Phase I of the Bent

Horn development, one modified Lunni tank ship or any other suitable ice-strengthened tank ship would collect 16,800 cubic metres of crude oil once per year during the summer and transport it to markets in eastern Canada. In Phase II, 67,830 cubic metres of crude oil would be produced annually and transported to market in two or more tankers. Phase I would encompass the first three years of the project and Phase II the following years (four minimum) until the estimated recoverable total of 335,000 cubic metres of crude oil had been transported south. The Minister of IAND approved the Bent Horn project in February 1985. However, the project design continued to change particularly with respect to the shipping component. In early 1985, work started on the modification of the Arctic-class Canadian bulk ore carrier the M.V. ARCTIC to become an ice-breaking (Arctic Class 3) combination oil and bulk ore carrier. Plans called for this vessel to be used to transport crude oil from Cameron Island to the vicinity of Rae Point, Melville Island, where the oil would be transferred to another tanker for shipment to eastern Canada. The route of the M.V. ARCTIC would depend on ice conditions and most likely would be either Byam Martin Channel and West Arnott Strait or Pell Inlet, Erskine Inlet and East Arnott Strait. In late August 1985 the M.V. ARCTIC, now converted to an oil/bulk-ore carrier, reached Cameron Island via the Pell Inlet/Erskine Inlet route. After loading crude oil, it made the passage to Rae Point via Byam Martin Channel. At Rae Point the cargo was transferred to the IMPERIAL BEDFORD and transported by this vessel to Montreal, this being the first shipment of crude oil out of the Canadian Arctic to southern markets.

The Bent Horn Project was reviewed through various fora including EACAMT, the Interdepartmental Review Committee (IERC) and the High Arctic Development Committee. EACAMT's involvement has been primarily with the shipping component. In March 1984, EACAMT gave the Canadian Coast Guard advice on the Bent Horn project based on a review of "The Bent Horn Oil Project: Environmental and Social Parameters - Information Available" prepared for Panarctic in February 1984. EACAMT concluded that the report was an inadequate basis for project approval because it did not address many important

environmental aspects of the shipping component, and consequently an Initial Environmental Evaluation should be prepared. An IEE was produced in June 1984 and was reviewed through the IERC.

An EACAMT working group met with Panarctic officials in May 1984 to review the information base available on the shipping route with particular emphasis on the area from Rae Point to Cameron Island. The data bases for sea ice, oil spill trajectory analyses, wildlife, hydrography, currents, biological oceanography, chemical oceanography and the loading site were discussed. The working group concluded that more information was required on sea ice, bathymetry and currents in Arnott Strait. EACAMT approved the working group's recommendation that the Arctic Shipping Control Authority should include as conditions of approval for the Bent Horn project the requirements for (i) increased frequency of observations and analyses of ice conditions during break-up and freeze-up; (ii) bathymetric data from Rae Point to Cameron Island, Arnott Strait and alternative routes; and (iii) data on currents for Arnott Strait.

In August 1984, EACAMT began review of the Bent Horn Maritime Contingency Plan. The review was finalized at its October meeting and comments were provided to the Canadian Coast Guard. The main thrusts of the comments was: that Panarctic should produce a more operationally oriented contingency plan; that further work was required on shoreline and biological sensitivity mapping, the aging of spilled Bent Horn oil, the polynya in Arnott Strait and the bathymetry along alternate routes; and that more details of the oil spill trajectory calculations should be provided. These issues were discussed with Panarctic at a meeting in February 1985.

At a joint meeting with the Arctic Shipping Control Authority in February 1985, EACAMT was provided with an update on the Bent Horn project including the conversion of the M. V. ARCTIC and the investigations of Canarctic (the owners of the M. V. ARCTIC) on ice and its effects on possible routes. The analysis of ice conditions indicated easier access to

Cameron Island most years via Pell Inlet and Erskine Channel as opposed to the Byam Martin Channel to Arnott Strait route.

(c) Lady Franklin

Originally it was proposed that Finnish Lunni tankers be used to move oil from the Bent Horn field (refer to b, above); however these were not rated as meeting the Arctic Class 3 standards required and were not accepted. Subsequently (and as previously noted), industry and government decided to upgrade the M.V. ARCTIC to Arctic Class 3 standards and convert it into an OBO (oil tanker bulk ore carrier). In order to demonstrate the feasibility of moving oil from Bent Horn, Panarctic decided on a demonstration run in the late summer of 1984. The M.V. ARCTIC was unavailable then so the LADY FRANKLIN (of Crosbie Shipping) was substituted with the CCG providing ice-breaker support as a condition of entry into shipping safety control Zone 1.

Participants of EACAMT were advised of the proposed voyage, asked for their concerns, and forwarded pertinent material as available. The trip proceeded safely. Thick ice prevented the LADY FRANKLIN from actually reaching Bent Horn; however, it was close enough that a barrel of crude oil was airlifted to the ship, demonstrating the feasibility of shipping oil from the region.

(d) Lindblad Explorer

In the late summer of 1984 the passenger ship the LINDBLAD EXPLORER was scheduled to transit the Northwest Passage (Southern route) from east to west. This was the first time a passenger ship had attempted such a feat. Members of EACAMT were advised of the trip, asked for their concerns, and kept updated through correspondence and meetings. The transit was made without incident, and other voyages by similar vessels are planned for the summer of 1985.

(e) World Discoverer

In 1985 EACAMT was advised of the proposed voyage of the German cruise ship WORLD DISCOVERER, which subsequently travelled through the Northwest Passage from west to east.

(f) Polar Stern

The West German Government tested their icebreaking research ship the POLAR STERN in the ice off the coast of Labrador in the spring of 1984. The Labrador Inuit Association (LIA) showed a keen interest in the test, and several LIA observers participated in the voyage; one of their major concerns was that seals would be crushed by the hull. Concerns raised by EACAMT about the voyage were conveyed to the CCG, and members were kept abreast of events by correspondence or updates at meetings as appropriate. The vessel completed the trials without major incident.

4.3 *Special Studies*

(a) Vessel-Environment Interactions

At its January 1984 meeting, EACAMT agreed that a working group of the Committee should examine the applicability of the proposed APP shipping corridor to existing shipping by identifying: potential interactions between current shipping patterns and safety hazards; the biological environment and resource harvesting activities; potential problems resulting from these interactions; and potential solutions or studies required to resolve these problems. EACAMT had earlier suggested consideration be given to the use of existing shipping for making observations on wildlife and for collecting oceanographic data. Members of the working group discussed this and concluded that incidental sightings of birds would not be useful but that records of sightings of marine mammals could provide some useful information. However, existing wildlife sighting forms and handbooks needed to be revised for the eastern Arctic, and observers should be trained.

In April 1984, members of the working group met to consider the best approach for identifying solutions or studies required to resolve environmental problems associated with existing shipping. The conclusions were that EACAMT should develop a comprehensive research and monitoring strategy based on the approach taken by the Beaufort Environmental Monitoring Project, and that the need for the proposed offshore wildlife observation program should be reassessed after this comprehensive research and monitoring strategy was developed. EACAMT agreed to this approach at its May 1984 meeting and established a steering committee to implement the proposal.

The steering committee met in July and September 1984. A proposed action plan was developed "to identify the significant environmental issues associated with arctic marine transportation in the eastern Arctic, and to recommend the monitoring and research associated with existing shipping that can be used to provide environmental advice to the Canadian Coast Guard for the management of marine traffic in the Arctic". The steering committee made a proposal to hold an interdisciplinary workshop at which research and monitoring needs would be identified. EACAMT reviewed the proposal at its October 1984 meeting and agreed that Dr. D.P. Stone, DIAND, should be project manager for the workshop, but that a new proposal and budget should be prepared which should utilize government expertise, rather than consultants, to the extent possible. The revised proposal was approved by EACAMT members at the February 1985 meeting. The workshop was held October 21-25, 1985 at Hecla, Manitoba; the report of the workshop is expected to be available in 1986.

5.0 CHAIRMEN'S REMARKS

The Environmental Advisory Committee on Arctic Marine Transportation, better known by its acronym EACAMT, has been in existence for about four years. The first meeting was held on 31 October 1981 in Hull, Quebec. It was formed as a result of a recommendation contained in the report of the Environmental Assessment Panel on the Arctic Pilot Project (Northern Component), released in October 1980. The purpose of

EACAMT is to provide a mechanism, with initial reference to the Arctic Pilot Project, to ensure that the Control Authority receives appropriate environmental information and advice, for incorporation into a management system for arctic shipping routes and ship movements, on those aspects of the environment, natural resources and transportation which may be affected by such shipping routes and ship movements. In our most recent meeting (held 14 February 1985 in Ottawa as a joint meeting with Coast Guard's Arctic Shipping Control Authority), Mr. R. Quail, Commissioner of the Canadian Coast Guard, noted that the information provided by EACAMT is useful and helps the Canadian Coast Guard to better address environmental concerns.

The committee is composed of a wide spectrum of groups (federal and territorial government agencies, industry and native groups) having diverse interests in the Arctic. This ensures that a wide variety of interested parties have the opportunity to be involved with and discuss environmental issues associated with Arctic shipping. We ensure that members are aware of current Arctic shipping issues through our meetings and the circulation of minutes, reports and pertinent correspondence. The concept has worked so well that an eastern cousin, the Environmental Advisory Committee for Newfoundland Labrador Marine Transportation (EACNLMT) was formed in late 1984. The stimulus for this came partly from Beaufort Sea Panel Recommendation No. 80³, and partly because the Labrador Inuit Association (LIA) pointed out that concerns in the Labrador Sea south of 60° latitude were not covered by existing mechanisms.

³ The Minister of the Environment either:

- (a) appoint with the Government of Newfoundland an independent review body to conduct a public review on the environmental and socio-economic effects of tanker traffic in the Labrador Sea; or
- (b) sponsor a review of this issue at a conference called for that purpose to be held in Newfoundland. Recommendations made at the conference should be published and the Department of the Environment should attempt follow-up action where appropriate.

Early work for EACAMT focussed on the Arctic Pilot Project (APP), and this is covered in detail in Section 4.2. Although the APP no longer exists as such, the generic types of questions relating to shipping in the Arctic remain. Hence the work done by EACAMT on the Arctic Pilot Project continues to be of use in responding to other shipping proposals such as the Bent Horn project, which involves the shipping of oil from the Bent Horn field on Cameron Island to southern Canada.

The future activities of EACAMT depend partly on the pace of Arctic marine development and partly on more generic issues such as the Control Authority's Development of a manual of Operational Guidelines and Procedures for Commercial Vessels north of 60°N. The mid-term economic outlook, with lower oil prices and low commodity prices, probably will slow the growth of arctic marine traffic. Our expectation, therefore, is that the pace of arctic marine development from industry will slow down, but that vessel operations for tourism purposes may expand (at least until a bad ice year). We see a continuing requirement for EACAMT to provide environmental advice to the Control Authority. In the past we have been primarily reactive. However, EACAMT is becoming more proactive in identifying and tackling generic arctic marine shipping issues, e.g. marine mammal/vessel interactions. This will enable EACAMT to respond better to questions from the Control Authority, which will in turn benefit the Arctic marine environment.

G.H. Lawler, Department of Fisheries and Oceans

A.H. Macpherson, Department of the Environment

Co-Chairmen

6.0 CONTROL AUTHORITY REMARKS

6.1 *Usefulness of EACAMT Advice*

The benefit of having an environmental advisory committee in place as a broadly based group giving guidance on environmental matters has been very evident to Coast Guard. In addition to Coast Guard people gaining a better appreciation of northern environmental issues -- such as ship track crossings, noise pollution, the extent of over-ice Inuit hunts -- we have had specific assistance, notably with the Panarctic project, but also with the cruise ship ventures, the POLAR STERN and in fact with most of the problems behind the issues of the past years. In regard to the Bent Horn project, shipping regulators, environmental regulators, industry and the proponent have dealt with the shipping aspect of the project. For the first time environmental concerns, considered together with the practical problems of ship routing and contingency planning, have been considered in a marine contingency plan review, resulting in conditions in the Development Plan Approval issued to the company by the Minister of IAND.

Without EACAMT it would have been difficult, if not impossible, for Coast Guard to have dealt with the need to obtain broad, coherent, environmental advice on projects, routes, voyages, or to have enforced its concerns for practical yet adequate ship related contingency plans. In addition, Coast Guard's EACAMT liaison has allowed it to understand Northern concerns about suddenly-proposed foreign flag voyages in time to respond, through External Affairs, to foreign government proposals for entry.

6.2 *Problems with the EACAMT/ASCA Mechanism*

Coast Guard had hoped in the beginning to have ASCA and EACAMT as integrated groups, meeting jointly on a regular basis, and with representatives appointed from each group to the other. The assumption was that their work at any time would be centered on the same Arctic initiatives. In practice the situation has evolved quite differently.

Coast Guard, instead of using ASCA primarily as a group focusing on major Arctic initiatives, in congruence with EACAMT, has used the structure as a Committee to consider the almost weekly requests of industry for decisions on their imminent operational requirements. The intention was to circulate the minutes of ASCA to EACAMT, but most meetings of ASCA have dealt with one or another oil company's drilling proposal -- and the companies indicated their concern for commercial confidentiality in protecting their competitive position. The presence at your meetings and working groups of Coast Guard personnel however has allowed the substance of these matters to be brought to the attention of EACAMT.

An ongoing problem we all recognize is the continued absence of spokespersons for the leading Inuit groups.

Coast Guard has been very satisfied with the return of information and advice from EACAMT. The quality and timeliness of responses has been excellent, even on occasions of "short notice!"

6.3 Other Matters of Interest

- Coast Guard has been requested to look at modifying the existing dates for Zone 6 to bring these into general alignment with those of Zone 13.
- The LINDBLAD EXPLORER involved consideration of passenger safety, sovereignty and icebreaker escort.
- The POLAR STERN original voyage plans were changed due to the ship's ice class; this brought to the fore environmental and Inuit socio-economic concerns and evolved methods to address them.
- Contingency plans utilizing emergency ship support in the Beaufort Sea were upgraded to meet ASCA requirements.

These and other matters have resulted in:

- Amendments to regulations;

- Orders-in-Council to allow certain escorted voyages;
- modified contingency plans;
- a Coast Guard advisory service to grain ships;
- an Order-in-Council to allow Little Cornwallis Island entries;
- a detailed Operations Order for the LADY FRANKLIN;
- a CG Operations Order to ensure quick pre-planned responses to any LINDBLAD EXPLORER problems; and
- advice to External Affairs on proposed foreign flag voyages.

C. Stephenson

Director

Canadian Coast Guard Northern Region

7.0 INUIT REMARKS

The Inuit Tapirisat of Canada elected a new president, Rhoda Innuksuk, in April 1985. The new administration brought in staff and has begun to co-ordinate activities with other Inuit organizations. No meeting of the Environmental Advisory Committee on Arctic Marine Transportation has in fact been held since the inauguration of the current president, although meetings have been scheduled. This limits to some extent the comments that can be made at this time by the Inuit Tapirisat. However we will attempt to provide useful comment to the extent possible under the circumstances.

In discussions with representatives of Inuit organizations which have had first-hand experience with EACAMT and its endeavours, it has been suggested that, while Inuit participation and contributions are valued, it is on the basis that Inuit address the concerns and proposals of Government and Industry, usually with respect to specific projects. This is a source of frustration, because Inuit also have concerns, but it is very difficult to get Government and Industry to consider issues like institutional provisions for protection of the

marine environment, including the sea-ice, in which Inuit could have a role in decision-making. While the terms of reference set guidelines and give mandates for efforts of interest to some parties, it is difficult to get commitments from Government and Industry to establish processes to deal with Inuit concerns in the offshore.

Leaving the question of the adequacy of the EACAMT mandate and process, very practical problems exist, which serve as effective barriers to Inuit participation: costs of attending meetings, which became a visible concern when we received invitations to attend EACAMT meetings which were ultimately cancelled. Travel on public business of this sort should be funded, but it isn't. A second enormous barrier to participation is language. Translation services would facilitate Inuit participation. We realize that this is not often considered, but it is a factor which people ought to be made aware of.

In summary, we view EACAMT as a body with the potential for useful exchange of information, and look forward to actively participating when we are invited to a meeting, time and resources permitting.

N. Doubleday

Legal Counsel and Environmental Co-ordinator

Inuit Tapirisat of Canada

8.0 INDUSTRY REMARKS

The EACAMT committee presents a unique vehicle for dialogue at a single table between such diverse interest as the Coast Guard, Indian and Northern Affairs, Territorial Governments, Native Groups, Industry, DFO, and DOE. It is extremely useful and is not imitated elsewhere. We would encourage such dialogue to continue. Industry finds also that the opportunity to meet with the Coast Guard Control Authority to discuss items of common interest to be a very useful forum.

While the committee was established essentially to address northern mega-projects that have been delayed or cancelled, it has nonetheless continued to be a useful forum for discussion of various smaller projects and associated environmental concerns. While the membership of the committee is extensive, we would encourage the committee to continue its efforts to increase participation by northern native groups.

The case studies that the committee has undertaken have been most productive, contributing substantially to decisions requested of Coast Guard and to our understanding of northern research needs and the interaction of those needs with industrial development. For example, the review that was carried out of the Integrated Route Analysis of the Arctic Pilot Project served to effectively identify the state of the art with regard to northern shipping through the Northwest Passage. Further, the review that was undertaken of the Bent Horn Proposal was extremely useful in focussing on the issues of environmental significance that required addressing before project approval could be granted to Panarctic.

In terms of the future, we would like to see the committee continue as it serves an effective role in dialogue between government and industry. It is a useful early warning mechanism in terms of proposed studies and/or developments; it is effective in bringing a large number of players together who otherwise would not undertake such dialogue; and it has a great potential for focussing study needs with a view to producing results for decision making. Finally, we would also recommend that the committee increase its emphasis in reviewing relevant departmental programs and perhaps recommending on the direction that some of those programs might take.

E. Pessah, Dome Petroleum and

M.R. Robertson, Petro-Canada Inc.

9.0 TERRITORIES' REMARKS

9.1 *Government of the Northwest Territories*

The government of the Northwest Territories has participated in EACAMT activities largely in an "observer status". Since our mandate in the management and regulation of arctic marine transportation is very limited, our interest in Committee activities is based primarily on our role in wildlife management and in socio-economic and community concerns. EACAMT has proven a useful forum for us, one through which interaction with environmental and shipping regulators has enhanced our access to information about arctic shipping and has improved our ability to plan for, and cope with, such activities. As the role of the Government of the Northwest Territories evolves, via the transfer of federal environmental authorities, our profile on the Committee will undoubtedly be enhanced. We look forward to continued positive interactions.

J. Donihee

Government of the Northwest Territories

9.2 *Government of the Yukon*

The Government of Yukon has monitored EACAMT activities to date as an "observer". Our government does not currently have a mandate to manage or regulate arctic marine transportation. Our interest in Committee activities is based on our role in managing renewable resources, socio-economic and community concerns, and in our growing involvement in activities on and off the Yukon coastline. EACAMT is a valuable source of information for us and it is a forum in which we hope to increase our level of participation as western Arctic shipping issues rise to the fore. We look forward to ongoing positive involvement with the Committee.

T. McTiernan

Yukon Territorial Government

APPENDIX 'A'

EACAMT MEMBERSHIP

(As at 31 March 1986)

1. LIST OF MEMBERS AND ADVISORS

Members

Dr. A.H. Macpherson	Dept. of the Environment, Co-Chairman
Dr. G.H. Lawler	Dept. of Fisheries & Oceans, Co-Chairman
Mr. J. Rochon	Dept. of Energy, Mines and Resources
Mr. T. McTiernan	Yukon Territorial Government
Ms. C. Stephenson	Dept. of Transport
Mr. R.D. Livingston	Government of the Northwest Territories
Major R.V. Priestman	Dept. of National Defence
Mr. T. Langtry	Dept. of Indian Affairs & Northern Development
Mr. E. Pessah	Dome Petroleum Ltd.
Mr. M.R. Robertson	Petro-Canada Inc.
Ms. R. Innuksuk	Inuit Tapirisat of Canada
Mr. D. Currie	Alberta Chamber of Resources
Mr. A.R. Sneyd	Canarctic Shipping Co. Ltd.
Dr. K. Mann	Dept. of Fisheries and Oceans

Ex Officio Members

Mr. R.A. Quail	Dept. of Transport (Chairman, ASCA)
Mr. J. Osborne	Dept. of Environment (Co-Chairman, EACLNT)
Mr. R.J. Wiseman	Dept. of Fisheries & Oceans (Co-Chairman, EACLNT)

Advisors

Dr. A.N. Boydell	Dept. of the Environment
Mr. R.H. Weir	Dept. of the Environment
Dr. R. McV. Clarke	Dept. of Fisheries and Oceans
Mr. H.B. Nicholls	Dept. of Fisheries and Oceans
Ms. N. Doubleday	Inuit Tapirisat of Canada

Secretary

Mr. K.B. Switzer	Dept. of the Environment
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APPENDIX 'B'

LIST OF EACAMT MEETINGS (INCLUDING WORKING GROUPS)

<u>Date</u>	<u>Place</u>	<u>Type of Meeting</u>	<u>Remarks</u>
30 Oct 81	Hull, Quebec	EACAMT, 81-1 (1)	-
12 Feb 82	Edmonton, Alberta	EACAMT, 82-1 (2)	-
31 Mar 82	Ottawa, Ontario	EACAMT, 82-2 (3)	Joint Session with Control Authority
26 Feb 82	Calgary, Alberta	Working Group	APP Integrated Route Analysis
16 Nov 82	Calgary, Alberta	EACAMT, 82-3 (4)	-
7-8 Dec 82	Calgary, Alberta	Working Group	APP Integrated Route Analysis
16 Jun 83	Hull, Quebec	EACAMT, 83-1 (5)	-
25 Jan 84	Montreal, Quebec	EACAMT, 84-1 (6)	-
8 Feb 84	Winnipeg, Manitoba	Sub Working Group	Offshore Wildlife Sighting Forms
26 Apr 84	Calgary, Alberta	Sub Working Group	Marine Mammal/ Vessel Inter- action
28 May 84	Calgary, Alberta	Working Group	Bent Horn Transportation
30 May 84	Winnipeg, Manitoba	EACAMT, 84-2 (7)	-
26 Jul 84	Winnipeg, Manitoba	Steering Committee	Vessel/ Environment Interactions
13 Sep 84	Winnipeg, Manitoba	Steering Committee	Vessel/ Environment Interactions
23 Oct 84	Ottawa, Ontario	EACAMT, 84-3 (8)	-
14 Feb 85	Ottawa, Ontario	EACAMT, 85-1 (9)	Joint Session with Control Authority
11 Jun 86	Hull, Quebec	EACAMT, 86-1 (10)	

APPENDIX 'C'
TERMS OF REFERENCE

Terms of Reference of:

- (1) Environmental Advisory Committee on Arctic Marine Transportation (EACAMT)**
- (2) Arctic Shipping Control Authority (ASCA)**

Note: These Terms of Reference are from the amended draft memorandum of Understanding, dated 12 March 1986, "...between the Department of Transport and, jointly, the Departments of the Environment and the Department of Fisheries and Oceans respecting the Environmental Advisory Committee on Arctic Marine Transportation".

APPENDIX 'C'
TERMS OF REFERENCE

Environmental Advisory Committee on Arctic Marine Transportation

General

1. The Environmental Advisory Committee on Arctic Marine Transportation (EACAMT) is established by the Department of Environment (DOE) and the Department of Fisheries and Oceans (DFO) in response to recommendations contained in the Report of the Environmental Assessment Panel for the Arctic Pilot Project (Northern Component), and in accordance with a Memorandum of Understanding between the Department of Transport (DOT) and, jointly, DFO and DOE.

Purpose/Role

2. The purpose of the Environmental Advisory Committee is to provide a mechanism, with initial reference to the Arctic Pilot Project, to ensure that the Control Authority receives appropriate environmental information and advice for incorporation into a management system for Arctic shipping routes and ship movements, on those aspects of the environment, natural resources and transportation which may be affected by such shipping routes and ship movements.

Membership

3. The membership shall include representatives of DFO, DOE, DOT (the DOT member shall have ex-officio status), DINA, DND, DEMR, the Government of the Northwest Territories, the Government of Yukon, Inuit Groups and industry.
4. Other concerned departments and groups shall be admitted as may be agreed upon by the Committee.
5. Each member may be accompanied by a supporting observer as and when appropriate.

Chairmanship

6. The senior representatives of DFO and DOE shall be Co-Chairmen of the Committee.

This arrangement will be reviewed as the role of the Committee develops.

Meetings

7. The frequency and locations of meetings will be determined by the Co-Chairmen in consultation with members where feasible and appropriate.

Secretariat

8. The Secretariat of the Committee will be provided by DOE, Edmonton with support from DFO, Winnipeg.

Financial

9. The costs incurred by members attending committee meetings shall be borne by the individual agencies represented on the committee.

Working Groups

10. The Committee may establish and utilize working groups comprised of specialists from government, industry, and Inuit when appropriate, in order to facilitate its deliberations on selected matters.
11. The Committee shall develop appropriate terms of reference for the working groups it establishes.

Responsibilities

12. The Committee, in fulfilling its purpose, shall have the following responsibilities:
- (a) to assess environmental information to define relevant data gaps;
 - (b) to recommend areas of study to be carried out by industry and/or government;

- (c) to monitor studies and assess results;
 - (d) to make recommendations to the Control Authority on:
 - (i) measures necessary for protection of the environment;
 - (ii) measures necessary for minimizing or avoiding disruption of other human activities such as hunting, fishing and trapping;
 - (iii) environmental research, monitoring and other activities necessary to facilitate provision of sound environmental information and advice to the Control Authority; and
 - (iv) requirements relating to Arctic shipping routes and ship movements arising from statutory responsibilities other than the Canada Shipping Act (e.g. Fisheries Act, Migratory Birds Convention Act).
 - (e) to provide a forum for consultation between Inuit, industry and government on relevant environmental and resource use activities including the promotion of joint programs where appropriate; and
 - (f) to advise and consult with the Control Authority on all matters of mutual concern.
13. The work of the Committee shall not in any way supplant or interfere with existing operational linkages, such as but not limited to hydrographic charting, forecasting services for weather, ice and seastate, and support service to the On-Scene Commander during oil spill emergencies.

Arctic Shipping Control Authority

General

1. The Control Authority is established by the Department of Transport in response to recommendations contained in the Report of the Environmental Assessment Panel for the Arctic Pilot Project (Northern Component), and in accordance with a Memorandum of Understanding between the Department of Transport and, jointly, the Department of Environment and the Department of Fisheries and Oceans.

Purpose

2. The purpose of the Control Authority is to deal with issues arising from planned Arctic shipping, and to provide a forum for the receipt of environmental and related advice and concerns from the Environmental Advisory Committee on Arctic Marine Transportation (EACAMT), and to integrate that advice into the planning framework for management of shipping routes and ship movements in Arctic waters on a year-round basis.

Development Phase

3. The Control Authority concept is in a development phase until year-round traffic becomes a reality. The Coast Guard has established the Control Authority as a committee to co-ordinate the various control and advisory systems in place for the classification and movement of the current seasonal, and proposed extended-season, operations. While the Control Authority and EACAMT prepare for year-round hydrocarbon shipments, it is recognized that the Control Authority is a structure under development, that it meets on an ad hoc and occasionally urgent basis, and that the co-operation and willing participation of industry, northerners and others is essential in developing a feasible traffic management system.

Role

4. The role of the Control Authority is to plan for the management of shipping routes and ship movements, and to provide guidance to the individual Coast Guard Directors with related program responsibilities.

Area of Jurisdiction

5. As noted, the Control Authority is under development, in preparation for year-round hydrocarbon movements. These shipments are considered to be the focal point for the attention of the ASCA/EACAMT for some years to come. The traffic management systems developed will provide for assistance, advice, and, when necessary, control of all major shipping routes in Arctic waters. Arctic waters are defined as those Canadian waters and waters in which Canada exercises, or proposes to exercise, ship routing regimes, that are north of 60° north, and including all of Hudson, James and Ungava Bays. In advance of year-round traffic in these waters, the Control Authority deals with the current and proposed summer traffic, the occasional winter traffic and the significant incidence of extended season/extended zone traffic.

Membership

6. The Control Authority is chaired by the Commissioner of the Canadian Coast Guard, and comprises the following Coast Guard members:

Deputy Commissioner

Director, Northern

Director, Ship Safety

Director, Aids and Waterways

Director, Fleet Systems

Director, Telecommunications and Electronics

Ex-officio members:

Co-Chairmen of the Environmental Advisory Committee on Arctic Marine
Transportation, i.e.,
Director-General, Fisheries & Oceans, Western Region and
Director-General, Environment Canada, Western and Northern Region

Ex-Officio members of Environmental Advisory Committee

7. The Director, Coast Guard Northern or alternate is also an ex-officio member of EACAMT.

Meetings

8. The frequency of meetings will be determined by the Chairman.

Secretariat

9. The secretariat of the Committee will be provided by the Director, Coast Guard Northern.

Executive Branch

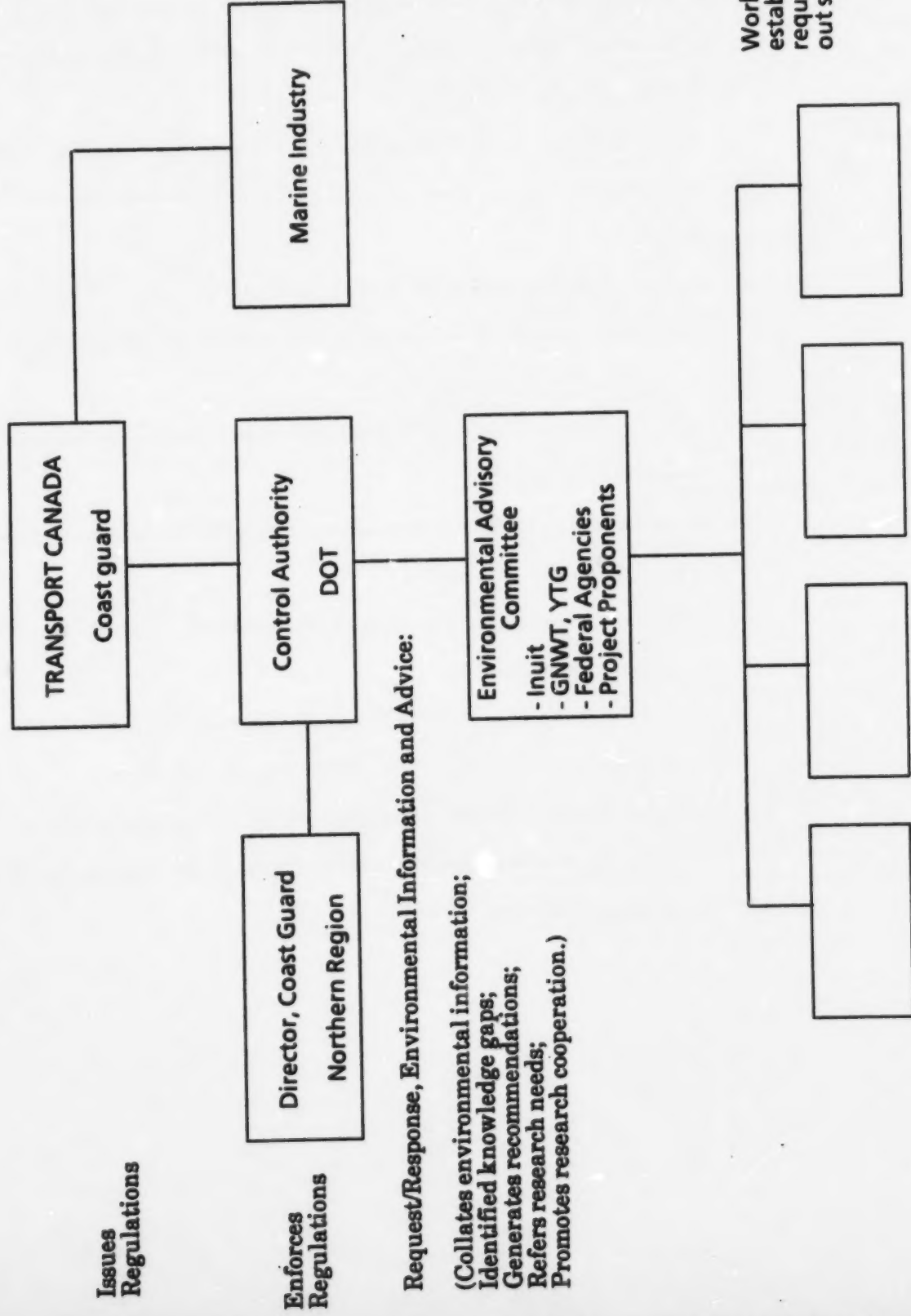
10. The Northern Branch in Coast Guard headquarters (DCGN) is a developmental Branch which, during the years leading up to year-round Arctic shipping, will evolve into an Arctic Region. One of the roles to be assumed by the Region is that of vessel traffic management (ship routing) in Arctic waters. DCGN is therefore the executive arm of the Control Authority, assuming responsibility for the plans, programs and resources required to monitor and manage shipping routes and ship movements.

Responsibility

11. The Control Authority in fulfilling its purpose shall have the following responsibilities in relation to its interaction with the Environmental Advisory Committee on Arctic Marine Transportation (EACAMT):

- (a) to plan for the development and implementation of management systems and support services for the shipping routes and ship movements projected for Arctic waters;
- (b) to develop guidelines and systems for and with EACAMT, and in developing the most effective format, from a navigational stand-point, for the transmission of environmental information and advice;
- (c) to receive, consider and, whenever agreed, act upon the advice and concerns expressed by EACAMT;
- (d) to discuss with EACAMT Co-Chairmen the studies proposed or underway, lending support or guidance as requested;
- (e) to present marine navigational problems or proposed solutions to the EACAMT for consideration or evaluation;
- (f) to review and respond to additional significant marine traffic proposals after referring these, as required, to EACAMT for analysis and advice;
- (g) to provide a focus of response, nationally and internationally, to queries and concerns regarding the management of shipping routes and ship movements in Canadian Arctic waters.

ENVIRONMENTAL ADVISORY COMMITTEE ON ARCTIC MARINE TRANSPORTATION



APPENDIX 'D'**KEY TO ACRONYMS USED IN THIS REVIEW**

APP	Arctic Pilot Project
ASCA	Arctic Shipping Control Authority
CCG	Canadian Coast Guard
DFO	Department of Fisheries and Oceans
DIAND	Department of Indian Affairs and Northern Development
DOE	Department of the Environment
DOT	Department of Transport
EACAMT	Environmental Advisory Committee on Arctic Marine Transportation
EACNLMT	Environmental Advisory Committee on Newfoundland and Labrador Marine Transportation
IEE	Initial Environmental Evaluation
IERC	Interdepartmental Environmental Review Committee
LIA	Labrador Inuit Association
MOU	Memorandum of Understanding
NEB	National Energy Board